

## Education

- 2010-2014      **Ph.D. Epidemiology**  
Johns Hopkins University, Bloomberg School of Public Health  
Concentration in Methods  
Advisor: Thomas Glass  
Thesis: Mental health in context: effect heterogeneity and mechanism in the relationship between neighborhood disadvantage and adolescent depression and anxiety.
- 2012-2013      **M.H.S. Biostatistics**  
Johns Hopkins University, Bloomberg School of Public Health  
Advisor: Elizabeth Stuart  
Thesis: Implementation of methods to estimate population marginal treatment effects in the presence of non-randomized treatment assignment and informative selection from a population-based sample.
- 2007-2008      **M.P.H.**  
Johns Hopkins University, Bloomberg School of Public Health  
Capstone: Evaluation design for a study using community health workers to improve breastfeeding rates among adolescent African American women in East Baltimore.
- 2006            Graduate course in biostatistics  
University of Pennsylvania
- 2001-2005      **B.S. Biochemistry**  
University of Michigan  
Highest honors  
Thesis: Actin-regulatory proteins  $p116^{RIP}$  and *LIMK2* interact with POSH.

## Awards

- 2014-2016      Robert Wood Johnson Foundation Health and Society Scholar  
2014            Student Paper Award—American Statistical Association, Social Statistics/Government/ Survey Research Methods Sections
- 2012-2014      Sommer Scholar—Johns Hopkins School of Public Health
- 2010-2012      Intramural Research Training Award Fellow—National Institute of Mental Health
- 2008            Delta Omega Honor Society—Johns Hopkins School of Public Health
- 2003-2005      James B. Angell Scholar—University of Michigan
- 2001-2005      University Honors—University of Michigan

## **Publications**

### **Published**

1. Rudolph KE, Diaz I, Rosenblum M, and Stuart EA. Estimating population treatment effects from a survey sub-sample. *American journal of epidemiology* 2014;180:737748.
2. Rudolph KE, Stuart EA, Glass TA, and Merikangas KR. Neighborhood disadvantage in context: the influence of urbanicity on the association between neighborhood disadvantage and adolescent emotional disorders. *Social psychiatry and psychiatric epidemiology* 2014;49:467–475.
3. Rudolph KE, Gary S W, Stuart EA, et al. The association between cortisol and neighborhood disadvantage in a US population-based sample of adolescents. *Health & place* 2014;25:68–77.
4. Lee RM, Lessler J, Lee RA, et al. Incubation periods of viral gastroenteritis: a systematic review. *BMC infectious diseases* 2013;13:446.
5. Azman AS, Rudolph KE, Cummings DA, and Lessler J. The incubation period of cholera: A systematic review. *Journal of Infection* 2013;66:432–438.
6. Rudolph KE, Lessler J, Moloney RM, Kmush B, and Cummings DA. Incubation Periods of Mosquito-Borne Viral Infections: A Systematic Review. *The American journal of tropical medicine and hygiene* 2014;90:882–891.
7. Rudolph KE, Glass TA, Crum RM, and Schwartz BS. Neighborhood psychosocial hazards and binge drinking among late middle-aged adults. *Journal of Urban Health* 2013;90:970–982.

### **Under Review**

1. Rudolph KE, Webster D, Stuart EA. Effects of Connecticut's permit-to-purchase law on homicides.
2. Hadley B, Rudolph KE, Mogul M, Perry DF. Providing home visiting to high-risk pregnant and postpartum families: the development and evaluation of the MOMobile program.
3. Webb-Vargas Y, Rudolph KE, Lenis D, Murakami P, Stuart EA. Applying multiple imputation for external calibration to propensity score analysis.
4. Paksarian D, Rudolph KE, He JP, Merikangas KR. School start time and adolescent sleep patterns: Results from the U.S. National Comorbidity Survey - Adolescent Supplement.

### **In Preparation**

1. Rudolph KE, Golden SH, Stuart EA, Diez Roux A. Job strain and cortisol: the Multi-Ethnic Study of Atherosclerosis.
2. Rudolph KE, van der Laan MJ. A targeted minimum loss-based estimator for transporting encouragement design interventions across sites.

3. Rudolph KE, Hong H, Stuart EA. Bayesian Approach for Addressing Covariate Measurement Error in Propensity Score Methods.
4. Rudolph KE, Stuart EA. Connections between unobserved confounding and covariate measurement error in propensity score methods.

### **Presentations and Posters**

- 2014 Rudolph KE, Diaz I, Rosenblum M, Stuart EA. Estimating population treatment effects from a survey sub-sample. Oral presentation as part of topic-contributed session Fresh Perspectives in Causal Inference II at the Joint Statistical Meetings, Boston, MA.
- 2014 Stuart EA, Rudolph KE. Bayesian approaches for handling differential covariate measurement error in propensity score methods. Oral presentation at the International Biometric Conference, Florence, Italy.
- 2014 Paksarian D, Rudolph KE, He JP, Zhang C, Merikangas KR. School start time and sleep patterns among U.S. adolescents: Results from the National Comorbidity Survey Adolescent Supplement. Poster at the Society for Epidemiological Research Conference, Seattle, WA.
- 2013 Rudolph KE, Wand GS, Stuart EA, Glass TA, Marques AH, Duncko R, Merikangas KR. The association between cortisol characteristics and neighborhood disadvantage in a population-based sample of U.S. adolescents. Poster at the Society for Epidemiologic Research Conference, Boston, MA.
- 2012 Rudolph KE, Stuart EA, Glass TA, Merikangas, KR. Using propensity score subclassification to examine the association between neighborhood disadvantage and adolescent mental health. Poster at the Society for Epidemiologic Research Conference, Minneapolis, MN.
- 2012 Rudolph KE, Glass TA, Schwartz BS. Neighborhood psychosocial hazards and binge drinking among older adults. Poster at the Society for Epidemiologic Research Conference, Minneapolis, MN.
- 2012 Azman AS, Rudolph KE, Cummings DAT, Lessler J. The incubation period of cholera: a pooled parametric survival analysis of doubly interval censored data. Poster at the Society for Epidemiologic Research Conference, Minneapolis, MN.
- 2010 Rudolph K, Gabor V, Morgan R. Environmental supports and barriers to physical activity in D.C. child care centers. Oral presentation at the Annual American Public Health Association Conference, Denver, CO.

### **Invited Talks**

- 2014 Neighborhood Disadvantage and Cortisol, Drexel School of Public Health, Department of Epidemiology and Biostatistics, Philadelphia, PA.

## Professional Experience

### Research

- 09/2014 - present    **Health and Society Scholar**  
Robert Wood Johnson Foundation  
University of California, San Francisco  
University of California, Berkeley
- 02/2014-08/2014    **Postdoctoral Fellow**  
Department of Mental Health  
Johns Hopkins School of Public Health, Baltimore, MD  
Drug Dependence and Epidemiology Training Program  
Advised by Dr. Elizabeth Stuart
- 04/2013-08/2014    **Statistical Consultant**  
Georgetown University, Washington, DC  
Center for Child and Human Development  
Partners for a Healthy Baby Evaluation
- 09/2012-01/2013    **Graduate research assistant** to Dr. Elizabeth Stuart  
Department of Mental Health  
Johns Hopkins School of Public Health, Baltimore, MD  
Developed conference material on statistical methods for missing data, developed material for Causal Inference course.
- 12/2010-06/2013    **Graduate research assistant** to Drs. Derek Cummings and Justin Lessler  
Department of Epidemiology  
Johns Hopkins School of Public Health, Baltimore, MD  
Performed systematic reviews of the incubation periods of multiple viruses.

### Teaching Experience

- 2013                    Teaching assistant - Spatial Analysis and GIS I  
Department of Biostatistics  
Johns Hopkins School of Public Health, Baltimore, MD
- 2013                    Teaching assistant - Spatial Analysis and GIS II  
Department of Biostatistics  
Johns Hopkins School of Public Health, Baltimore, MD
- 2011-2013            Teaching assistant - Fundamentals of Epidemiology and Biostatistics  
Department of Epidemiology  
Johns Hopkins School of Public Health, Baltimore, MD
- 2012                    Teaching assistant - Methodological Challenges in Epidemiological Research  
Department of Epidemiology  
Johns Hopkins School of Public Health, Baltimore, MD
- 2012                    Teaching assistant - Doctoral Seminar in Epidemiology  
Department of Epidemiology  
Johns Hopkins School of Public Health, Baltimore, MD

**Non-Academic**

09/2010-12/2010

**Consultant**

Altarum Institute, Washington, DC

Designed program evaluations for the State of Michigans Communities Putting Prevention to Work grant programs.

Conducted quantitative data analysis for several CDC-funded projects, including ACHIEVE and the State of Michigans School Nutrition Standards grant program.

06/2008-08/2010

**Policy Associate**

Altarum Institute, Washington, DC

Project Management: Managed program evaluation projects contracted by the Health Resources and Services Administration (HRSA) of HHS.

Evaluation Design: Designed program evaluations for the Maternal and Child Health Bureaus Early Childhood Comprehensive Systems Initiative, Texas Medicaid case management program, HRSA's Bureau of Health Professions minority health professions grant program, and Michigans Building Healthy Communities grant program.

Qualitative data analysis: Analyzed data obtained from focus groups, in-depth interviews, and data abstraction using NVivo qualitative analysis software.

Quantitative data analysis: Led teams in analysis of primary and secondary data using STATA and SAS statistical software.

Report writing: Co-authored several reports to HHS Office of Womens Health, HRSA's Bureau of Health Professions and Bureau of Healthcare Systems, and the Maternal and Child Health Bureau.

08/2007-01/2008

**Intern**

Howard County Health Department, Columbia, MD

Developed policies for health care access program to provide affordable, comprehensive health care coverage for all Howard County residents.

01/2008

**Field Worker**

Johns Hopkins Center for American Indian Health, Albuquerque, NM

Field work as a Family Health Liaison for a teen mother health behavior intervention on Navajo and Apache reservations.

06/2005-06/2007

**Staff Scientist**

Merck & Co. Inc., West Point, PA

Supported demonstration and licensing of Varicella manufacturing facility.

Provided technical and biological support for Varicella processing.

Project and People Management: Led project to re-design sterility testing.

## **Professional Activities**

### **Reviewer**

2014	PLOS ONE
2014	American Journal of Epidemiology
2014	Journal of Youth and Adolescence
2014	BMC Public Health
2014	Environment International
2013	Journal of Epidemiology and Community Health